Figure 1

Figure 2

Figure 3B

Figure 3A

49-54

74-78

101-105

133-137

187-192

Figure 4

```
  1  GAATTCCTAA AAATAGCAAA GATGCTTTTG AGCCAGAATG CCTTCATCGT CAGATCACTT AATTTGGTTC TCATGGTGTA TATCAGCCTC GTGTTTGGTA
     CTTAAGGATT TTTATCGTTT CTACGAAAAC TCGGTCTTAC GGAAGTAGCA GTCTAGTGAA TTAAACCAAG AGTACCACAT ATAGTCGGAG CACAAACCAT
                                                                                                                Ile
  1

        human alpha beta receptor

101  TTTCATATGA TTCGCCTGAT TACACAGATG AATCTTGCAC TTTCAAGATA TCATTGCGAA ATTTCCGGTC CATCTTTATCA TGGGAATTAA AAAACCACTC
     AAAGTATACT AAGCGGACTA ATGTGTCTAC TTAGAACGTG AAAGTTCTAT AGTAACGCTT TAAAGGCCAG GTAGAATAGT ACCCTTAATT TTTTGGTGAG
       SerTyrAs pSerProAsp TyrThrAspG luSerCysTh rPheLysIle SerLeuArgA rIleLeuSer TrpGluLeuL ysAsnHisSer
  2

201  CATTGTACCA ACTCACTATA CATTGCTGTA TACAATCATG AGTAAACCAG AAGATTTGAA GGTGGTTAAG AACTGTGCAA ATACCACAAG ATCATTTTGT
     GTAACATGGT TGAGTGATAT GTAACGACAT ATGTTAGTAC TCATTTGGTC TTCTAAACTT CCACCAATTC TTGACACGTT TATGGTGTTC TAGTAAAACA
       IleValPro ThrHisTyrT hrLeuLeuTy rThrIleMet SerLysProG luAspLeuLy sValValLys AsnCysAlaA snThrThrAr gSerPheCys
 35

301  GACCTCACAG ATGAGTGGAG AAGCACACAC GAGGCCTATG TCACCGTCCT AGAAGGATTC AGCGGGAACA CAACGTTGTT CAGTTGCTCA CACAATTTCT
     CTGGAGTGTC TACTCACCTC TTCGTGTGTG CTCCGGATAC AGTGGCAGGA TCTTCCTAAG TCGCCCCTGT GTTGCAACAA GTCAACGAGT GTGTTAAAGA
       AspLeuThrA spGluTrpAr gSerThrHis GluAlaTyrV alThrValLe uGluGlyPhe SerGlyAsnT hrThrLeuPh eSerCysSer HisAsnPheTrp
 68

401  GGCTGGCCAT AGACATGTCT TTTGAACCAC CAGAGTTTGA GATTGTTGGT TTTACCAACC ACATTAATGT GATGGTGAAA TTTCCATCTA TTGTTGAGGA
     CCGACCGGTA TCTGTACAGA AAACTTGGTG GTCTCAAACT CTAACAACCA AAATGGTTGG TGTAATTACA CTACCACTTT AAAGGTAGAT AACAACTCCT
       LeuAlaIl eAspMetSer PheGluProP roGluPheGl uIleValGly PheThrAsnH isIleAsnVa lMetValLys PheProSerI leValGluGlu
102

501  AGAATTACAG TTTGATTTAT CTCTCGTCAT TGAAGAACAG TCAGAGGGAA TTGTTAAGAA GCATAAACCC GAAATAAAAG GAAACATGAG TGGAAATTTC
     TCTTAATGTC AAACTAAATA GAGAGCAGTA ACTTCTTGTC AGTCTCCCTT AACAATTCTT CGTATTTGGG CTTTATTTTC CTTTGTACTC ACCTTTAAAG
       GluLeuGln PheAspLeuS erLeuValIl eGluGluGln SerGluGlyI leValLysLy sHisLysPro GluIleLysG lyAsnMetSe rGlyAsnPhe
135

601  ACCTATATCA TTGACAAGTT AATTCCAAAC ACGAACTACT GTGTATCTGT TTATTAGAG CACAGTGATG AGCAAGCAGT AATAAAGTCT CCCTTAAAT
     TGGATATAGT AACTGTTCAA TTAAGGTTTG TGCTTGATGA CACATAGACA AATAATCTC GTGTCACTAC TCGTTCGTCA TTATTTCAGA GGGAATTTTA
       ThrTyrIleI leAspLysLe uIleProAsn ThrAsnTyrC ysValSerVa lTyrLeuGlu HisSerAspG luGlnAlaVa lIleLysSer ProLeuLysCys
168

701  GCACCCTCCT TCCACCTGGC CAGGAATCAG AATCTGCCGAC AAAACTCACA CATGCCCACC GTGCCCAGCA CCTGAACTCC TGGGGGGACC
     CGTGGGAGGA AGGTGGACCG GTCCTTAGTC TTAGACGGCTG TTTTGAGTGT GTACGGGTGG CACGGGTCGT GGACTTGAGG ACCCCCCTGG
       ThrLeuLe uProProGly GlnGluSerG luSerAlaGl uSerThrHisT hrCysProPr oCysProAla ProGluLeuL euGlyGlyPro
202                                                                                                      IgG1

801  GTCAGTCTTC CTCTTCCCCC CAAAACCCAA GGACACCCTC ATGATCTCCC GGACCCCTGA GTCACATGC GTGGTGGTGG ACGTGAGCCA CGAAGACCCT
     CAGTCAGAAG GAGAAGGGGG GTTTTGGGTT CCTGTGGGAG TACTAGAGGG CCTGGGGACT TAGTGTACG CACCACCACC TGCACTCGGT GCTTCTGGGA
       SerValPhe LeuPheProP roLysProLy sAspThrLeu MetIleSerA rgThrProGl uValThrCys ValValValA spValSerHi sGluAspPro
235
```
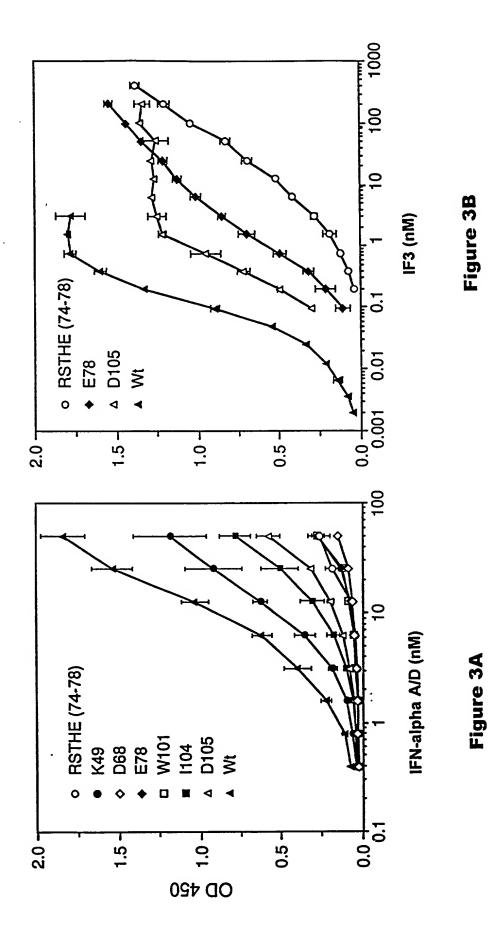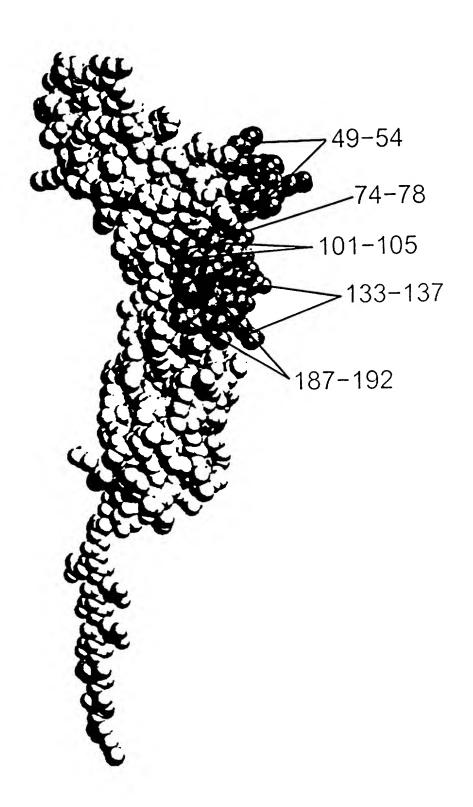
Figure 5A

901 GAGGTCAAGT TCAACTGGTA CGTGGACGGC GTGGAGGTGC ATAATGCCAA GACAAAGCCG CGGGAGGAGC AGTACAACAG CACGTACCGA GTGGTCAGCG
    CTCCAGTTCA AGTTGACCAT GCACCTGCCG CACCTCCACG TATTACGGTT CTGTTTCGGC GCCCTCCTCG TCATGTTGTC GTGCATGGCT CACCAGTCGC
268 GluValLysP heAsnTrpTy rValAspGly rValAspGly lnTyrAsnse rThrTyrArg ValValSerVal

1001 TCCTCACCGT CCTGCACCAG GACTGGCTGA ATGGCAAGGA GTACAAGTGC AAGGTCTCCA ACAAAGCCCT CCCAGCCCCC ATCGAGAAAA CCATCTCCAA
    AGGAGTGGCA GGACGTGGTC CTGACCGACT TACCGTTCCT CATGTTCACG TTCCAGAGGT TGTTTCGGGA GGGTCGGGGG TAGCTCTTTT GGTAGAGGTT
302 LeuThrVa lLeuHisGln AspTrpLeuA snLysValCys LysValSerA uProAlaPro IleGluLysT hrIleSerLys

1101 AGCCAAAGGG CAGCCCCGAG AACCACAGT GTACACCCTG CCCCCATCCC GGGAAGAGAT GACCAAGAAC CAGGTCAGCC TGACCTGCCT GGTCAAAGGC
    TCGGTTTCCC GTCGGGGCTC TTGGTGTCCA CATGTGGGAC GGGGGTAGGG CCCTTCTCTA CTGGTTCTTG GTCCAGTCGG ACTGGACGGA CCAGTTTCCG
335 AlaLysGly GlnProArgG luTyrThrLeu ProProSerA rgGluGlume tThrLysAsn GlnValSerL euThrCysLe uValLysGly

1201 TTCTATCCA GCGACATCGC CGTGGAGTGG GAGAGCAATG GGCAGCCGGA GAACAACTAC AAGACCACGC CTCCCGTGCT GGACTCCGAC GGCTCCTTCT
    AAGATAGGGT CGCTGTAGCG GCACCTCACC CTCTCGTTAC CCGTCGGCCT CTTGTTGATG TTCTGGTGCG GAGGGCACGA CCTGAGGCTG CCGAGGAAGA
368 PheTyrPros erAspIleAl aValGluTrp GluSerAsnG lyGlnProgl uAsnAsnTyr LysThrThrP roProValLe uAspSerAsp GlySerPhePhe

1301 TCCTCTACAG CAAGCTCACC GTGGACAAGA GCAGGTGGCA GCAGGGGAAC GTCTTCTCAT GCTCCGTGAT GCATGAGGCT CTGCACAACC ACTACACGCA
    AGGAGATGTC GTTCGAGTGG CACCTGTTCT CGTCCACCGT CGTCCCCTTG CAGAAGAGTA CGAGGCACTA CGTACTCCGA GACGTGTTGG TGATGTGCGT
402 LeuTyrSe rLysLeuThr ValAspLysS erArgTrpgl nGlnGlyAsn ValPheSerC ysSerValMe tHisGluAla LeuHisAsnH isTyrThrGln

1401 GAAGAGCCTC TCCCTGTCTC CGGGTAAATG AGTGCGACGG CCCTAGAGTC GACCTGCAGA AGCTTAGAAC CGAGGGGCCG CCATGGCCCA ACTTGTTTAT
    CTTCTCGGAG AGGGACAGAG GCCCATTTAC TCACGCTGCC GGGATCTCAG CTGGACGTCT TCGAATCTTG GCTCCCCGGC GGTACCGGGT TGAACAAATA
435 LysSerLeu SerLeuSerP roGlyLysOP *   (SEQ ID NO.26)

                                                                                              sv40 early
                                                                                              poly A

1501 TGCAGCTTAT AATGGTTACA TAGCATCACA AATTTCACAA ATAAAGCATT TTTTTCACTG CATTCTAGTT GTGGTTTGTC CAAACTCATC
    ACGTCGAATA TTACCAATGT ATCGTAGTGT TTAAAGTGTT TATTTCGTAA AAAAAGTGAC GTAAGATCAA CACCAAACAG GTTTGAGTAG

1601 AATGTATCTT ATCATGTCTG GATCGATCGG GAATTAATTC GGCGCAGCAC AATAACCTCT GAAAGAGGAA CTTGGTTAGG TACCTTCTGA
    TTACATAGAA TAGTACAGAC CTAGCTAGCC CTTAATTAAG CCGCGTCGTG TTATTGGAGA CTTTCTCCTT GAACCAATCC ATGGAAGACT
                            sv40 origin

1701 GGCGGAAAGA ACCAGTCGTG GAATGTGTGT CAGTTAGGGT GTGGAAAGTC CCCAGGCTCC CCAGCAGGCA GAAGTATGCA AAGCATGCAT CTCAATTAGT
    CCGCCTTTCT TGGTCAGCAC CTTACACACA GTCAATCCCA CACCTTTCAG GGGTCCGAGG GGTCGTCCGT CTTCATACGT TTCGTACGTA GAGTTAATCA

1801 CAGCAACCAG GTGTGGAAAG TCCCCAGGCT CCCCAGCAGG CAGAAGTATG CAAAGCATGC ATCTCAATTA GTCAGCAACC ATAGTCCCGC CCCTAACTCC
    GTCGTTGGTC CACACCTTTC AGGGGTCCGA GGGGGTCGTCC GTCTTCATAC GTTTCGTACG TAGAGTTAAT CAGTCGTTGG TATCAGGGCG GGGATTGAGG

Figure 5B

```
1901  GCCCATCCCG CCCCTAACTC CGCCCAGTTC CGCCCATTCT CGGCCCCATG GCTGACTAAT TTTTTTTATT TATGCAGAGG CCGAGGCCGC CTCGGCGCTCT
      CGGGTAGGGC GGGGATTGAG GCGGGTCAAG GCGGGTAAGA GCCGGGGTAC CGACTGATTA AAAAAAATAA ATACGTCTCC GGCTCCGGCG GAGCCGGAGA

2001  GAGCTATTCC AGAAGTAGTG AGGAGGCTTT TTTGGAGGCC TAGGCTTTTG CAAAAAGCTG TTAACAGCTT GGCACTGGCC GTCGTTTTAC AACGTCGTGA
      CTCGATAAGG TCTTCATCAC TCCTCCGAAA ATCCGAAAAC GTTTTTCGAC AATTGTCGAA CCGTGACCGG CAGCAAAATG TTGCAGCACT
                                                           start puc118

2101  CTGGGAAAAC CCTGGCGGTA CCCAACTTAA TCGCCTTGCA GCACATCCCC CCTTCGCCAG CTGGCGTAAT AGCGAAGAGG CCCGCACCGA TCGCCCTTCC
      GACCCTTTTG GGACCGCCAAT GGGTTGAATT AGCGGAACGT CGTGTAGGGG GGAAGCGGTC GACCGCATTA TCGCTTCTCC GGGCGTGGCT AGCGGGGAAGG

2201  CAACAGTTGC GTAGCCTGAA TGGCGAATGG CGCCTGATGC GGTATTTTCT CCTTACGCAT CTGTGCGGTA TTTCACACCG CATACGTCAA AGCAACCATA
      GTTGTCAACG CATCGGACTT ACCGCTTACC GCGGACTACG CCATAAAAGA GGAATGCGTA GACACGCCAT AAAGTGTGGC GTATGCAGTT TCGTTGGTAT

2301  GTACGCGCCC TGTAGCGGCG CATTAAGCGC GGCGGGTGTG GTGGTTACGC GCAGCGTGAC CGCTACACTT GCCAGCGCCC TAGCGCCCGC TCCTTTCGCT
      CATGCGCGGG ACATCGCCGC GTAATTCGCG CCGCCCACAC CGTCGCACTG CGGATGTGAA ATCGCGGGCG AGGAAAGCGA

2401  TTCTTCCCTT CCTTTCTCGC CACGTTCGCC GGCTTTCCCC GTCAAGCTCT AAATCGGGGG CTCCCTTTAG GGTTCCGATT TAGTGCTTTA CGGCACCTCG
      AAGAAGGGAA GGAAAGAGCG GTGCAAGCGG CCGAAAGGGG CAGTTCGAGA TTTAGCCCCC GAGGGAAATC CCAAGGCTAA ATCACGAAAT GCCGTGGAGC

2501  ACCCCAAAAA ACTTGATTTG GGTGATGGTT CACGTAGTGG GCCATCGCCC TGATAGACGG TTTTTCGCCC TTTGACGTTG GAGTCCACGT TCTTTAATAG
      TGGGGTTTTT TGAACTAAAC CCACTACCAA GTGCATCACC CGGTAGCGGG ACTATCTGCC AAAAAGCGGG AAACTGCAAC CTCAGGTGCA AGAAATTATC

2601  TGGACTCTTG TTCCAAACTG GAACAACACT CAACCCTATC TCGGGCTATT CTTTTGATTT ATAAGGGATT TTGCCGATTT CGGCCTATTG GTTAAAAAAT
      ACCTGAGAAC AAGGTTTGAC CTTGTTGTGA GTTGGGATAG AGCCCGATAA GAAAACTAAA TATTCCCTAA AACGGCTAAA GCCGGATAAC CAATTTTTTA

2701  GAGCTGATTT AACAAAAATT TAACGCGAAT TTTAACAAAA TATTAACGTT TACAATTTTA TGGTGCACTC TCAGTACAAT CTGCTCTGAT GCCGCATAGT
      CTCGACTAAA TTGTTTTTAA ATTGCGCTTA AAATTGTTTT ATAATTGCAA ATGTTAAAAT ACCACGTGAG AGTCATGTTA GACGAGACTA CGGCGTATCA

2801  TAAGCCAACT CCGCTATCGC TACGTGACTG GGTCATGGCT GGGAGCTGCA ACCCGCCGAC ACCCGCCAAC ACCCGCTGAC GGGCTTGTCT GCTCCCGGCA
      ATTCGGTTGA GGCGATAGCG ATGCACTGAC CCAGTACCGA CCCTCGACGT TGGGCGGCTG TGGGCGGTTG TGGGCGACTG CCCGAACAGA CGAGGGCCGT

2901  TCCGCTTACA GACAAGCTGT GACCGTCTCC GGGAGCTGCA TGTGTCAGAG GTTTTCACCG TCATCACCGA AACGCGCGAG GCAGTATTCT TGAAGACGAA
      AGGCGAATGT CTGTTCGACA CTGGCAGAGG CCCTCGACGT ACACAGTCTC CAAAAGTGGC AGTAGTGGCT TTGCGCGCTC CGTCATAAGA ACTTCTGCTT

3001  AGGGCCTCGT GATACGCCTA TTTTTATAGG TTAATGTCAT GATAATAATG GTTTCTTAGA CGTCAGGTGG CACTTTTCGG GGAAATGTGC GCGGAACCCC
      TCCCGGAGCA CTATGCGGAT AAAAATATCC AATTACAGTA CTATTATTAC CAAAGAATCT GCAGTCCACC GTGAAAAGCC CCTTTACACG CGCCTTGGGG
```

Figure 5C

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3101  TATTTGTTTA TTTTTCTAAA TACATTCAAA TATGTATCCG CTCATGAGAC AATAACCCTG ATAAATGCTT CAATAATATT GAAAAAGGAA GAGTATGAGT
      ATAAACAAAT AAAAAGATTT ATGTAAGTTT ATACATAGGC GAGTACTCTG TTATTGGGAC TATTTACGAA GTTATTATAA CTTTTTCCTT CTCATACTCA

3201  ATTCAACATT TCCGTGTCGC CCTTATTCCC TTTTTTGCGG CATTTTGCCT TCCTGTTTTT GCTCACCCAG AAACGCTGGT GAAAGTAAAA GATGCTGAAG
      TAAGTTGTAA AGGCACAGCG GGAATAAGGG AAAAAACGCC GTAAAACGGA AGGACAAAAA CGAGTGGGTC TTTGCGACCA CTTTCATTTT CTACGACTTC

3301  ATCAGTTGGG TGCACGAGTG GGTTACATCG AACTGGATCT CAACAGCGGT AAGATCCTTG AGAGTTTTCG CCCCGAAGAA CGTTTTCCAA TGATGAGCAC
      TAGTCAACCC ACGTGCTCAC CCAATGTAGC TTGACCTAGA GTTGTCGCCA TTCTAGGAAC TCTCAAAAGC GGGGCTTCTT GCAAAAGGTT ACTACTCGTG

3401  TTTTAAAGTT CTGCTATGTG GCGCGGTATT ATCCCGTGAT GACGCCGGGC AAGAGCAACT CGGTCGCCGC ATACACTATT CTCAGAATGA CTTGGTTGAG
      AAAATTTCAA GACGATACAC CGCGCCATAA TAGGGCACTA CTGCGGCCCG TTCTCGTTGA GCCAGCGGCG TATGTGATAA GAGTCTTACT GAACCAACTC

3501  TACTCACCAG TCACAGAAAA GCATCTTACG GATGGCATGA CAGTAAGAGA ATTATGCAGT GCTGCCATAA CCATGAGTGA TAACACTGCG GCCAACTTAC
      ATGAGTGGTC AGTGTCTTTT CGTAGAATGC CTACCGTACT GTCATTCTCT TAATACGTCA CGACGGTATT GGTACTCACT ATTGTGACGC CGGTTGAATG

3601  TTCTGACAAC GATCGGGAGA CCGAAGGAGC TTTGCACAAC ATGGGGGATC ATGTAACTCG CCTTGATCGT TGGGAACCGG AGCTGAATGA
      AAGACTGTTG CTAGCCTCCT GGCTTCCTCG AAACGTGTTG TACCCCCTAG TACATTGAGC GGAACTAGCA ACCCTTGGCC TCGACTTACT

3701  AGCCATACCA AACGACGAGC GTGACACCAC GATGCCAGCA GCAATGGCAA CAACGTTGCG CAAACTATTA ACTGGCGAAC TACTTACTCT AGCTTCCCGG
      TCGGTATGGT TTGCTGCTCG CACTGTGGTG CTACGGTCGT CGTTACCGTT GTTGCAACGC GTTTGATAAT TGACCGCTTG ATGAATGAGA TCGAAGGGCC

3801  CAACAATTAA TAGACTGGAT GGAGGCGGAT AAAGTTGCAG GACCACTTCT GCGCTCGGCC CTTCCGGCTG GCTGGTTTAT TGCTGATAAA TCTGGAGCCG
      GTTGTTAATT ATCTGACCTA CCTCCGCCTA TTTCAACGTC CTGGTGAAGA CGCGAGCCGG GAAGGCCGAC CGACCAAATA ACGACTATTT AGACCTCGGC

3901  GTGAGCGTGG GTCTCGCGGT ATCATTGCAG CACTGGGGCC AGATGGTAAG CCCTCCCGTA TCGTAGTTAT CTACACGACG GGGAGTCAGG CAACTATGGA
      CACTCGCACC CAGAGCGCCA TAGTAACGTC GTGACCCCGG TCTACCATTC GGGAGGGCAT AGCATCAATA GATGTGCTGC CCCTCAGTCC GTTGATACCT

4001  TGAACGAAAT AGACAGATCG CTGAGATAGG TGCCTCACTG ATTAAGCATT GGTAACTGTC AGACCAAGTT TACTCATATA TACTTTAGAT TGATTTAAAA
      ACTTGCTTTA TCTGTCTAGC GACTCTATCC ACGGAGTGAC TAATTCGTAA CCATTGACAG TCTGGTTCAA ATGAGTATAT ATGAAATCTA ACTAAATTTT

4101  CTTCATTTTT AATTTAAAAG GATCTAGGTG AAGATCCTTT TTGATAATCT CATGACCAAA ATCCCTTAAC GTGAGTTTTC GTTCCACTGA GCGTCAGACC
      GAAGTAAAAA TTAAATTTTC CTAGATCCAC TTCTAGGAAA AACTATTAGA GTACTGGTTT TAGGGAATTG CACTCAAAAG CAAGGTGACT CGCAGTCTGG

4201  CCGTAGAAAA GATCAAAGGA TCTTCTTGAG ATCCTTTTTT TCTGCGCGTA ATCTGCTGCT TGCAAACAAA AAAACCACCG CTACCAGCGG TGGTTTGTTT
      GGCATCTTTT CTAGTTTCCT AGAAGAACTC TAGGAAAAAA AGACGCGCAT TAGACGACGA ACGTTTGTTT TTTTGGTGGC GATGGTCGCC ACCAAACAAA

4301  GCCGGATCAA GAGCTACCAA CTCTTTTTCC GAAGGTAACT GGCTTCAGCA GAGCGCAGAT ACCAAATACT GTCCTTCTAG TGTAGCCGTA GTTAGGCCAC
      CGGCCTAGTT CTCGATGGTT GAGAAAAAGG CTTCCATTGA CCGAAGTCGT CTCGCGTCTA TGGTTTATGA CAGGAAGATC ACATCGGCAT CAATCCGGTG
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Figure 5D

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4401  CACTTCAAGA ACTCTGTAGC ACCGGCTACA TACCTGGCTC TGCTAATCCT GTTACCAGTG GCTGCTGCCA GTGGCGATAA GTCGTGTCTT ACCGGGTTGG
      GTGAAGTTCT TGAGACATCG TGGCCGATGT ATGGAGCGAG ACGATTAGGA CAATGGTCAC CGACGACGGT CACCGCTATT CAGCACAGAA TGGCCCAACC

4501  ACTCAAGACG ATAGTTACCG GATAAGGCGC AGCGGTCGGG CTGAACGGGG GGTTCGTGCA CACAGCCCAG CTTGGAGCGA ACGACCTACA CCGAACTGAG
      TGAGTTCTGC TATCAATGGC CTATTCCGCG TCGCCAGCCC GACTTGCCCC CCAAGCACGT GTGTCGGGTC GAACCTCGCT TGCTGGATGT GGCTTGACTC

4601  ATACCTACAG CGTGAGCATT GAGAAAGCGC CACGCTTCCC GAAGGGAGAA AGGCGGACAG GTATCCGGTA AGCGGCAGGG TCGGAACAGG AGAGCGCACG
      TATGGATGTC GCACTCGTAA CTCTTTCGCG GTGCGAAGGG CTTCCCTCTT TCCGCCTGTC CATAGGCCAT TCGCCGTCCC AGCCTTGTCC TCTCGCGTGC

4701  AGGGAGCTTC CAGGGGGAAA CGCCTGGTAT CTTTATAGTC CTGTCGGGTT TCGCCACCTC TGACTTGAGC GTCGATTTTT GTGATGCTCG TCAGGGGGGC
      TCCCTCGAAG GTCCCCCTTT GCGGACCATA GAAATATCAG GACAGCCCAA AGCGGTGGAG ACTGAACTCG CAGCTAAAAA CACTACGAGC AGTCCCCCCG

4801  GGAGCCTATG GAAAAACGCC AGCAACGCGG CCTTTTTACG GTTCCTGGCC CTTTTGCTCA CATGTTCTTT CCTGCGTTAT CCCCTGATTC
      CCTCGGATAC CTTTTTGCGG TCGTTGCGCC GGAAAAATGC CAAGGACCGG GAAAACGAGT GTACAAGAAA GGACGCAATA GGGGACTAAG

4901  TGTGGATAAC CGTATTACCG AGCTGATACC GCCGAACGAC CGAGCGCAGC GAGTCAGTGA GCGAGGAAGC GGAAGAGCGC
      ACACCTATTG GCATAATGGC TCGACTATGG CGGCTTGCTG GCTCGCGTCG CTCAGTCACT CGCTCCTTCG CCTTCTCGCG

5001  CCAATACGCA AACCGCCTCT CCCCGCGCGT TGGCCGATTC ATTAATCCAG CTGGCACGAC AGGTTTCCCG ACTGGAAAGC GGGCAGTGAG CGCAACGCAA
      GGTTATGCGT TTGGCGGAGA GGGGCGCGCA ACCGGCTAAG TAATTAGGTC GACCGTGCTG TCCAAAGGGC TGACCTTTCG CCCGTCACTC GCGTTGCGTT

5101  TTAAATGTGAG TTAGCTCACT CATTAGGCAC CCCAGGCTTT ACACTTTATG CTTCCGGCTC GTATGTTGTG TGGAATTGTG AGCGGATAAC AATTTCACAC
      AATTACACTC AATCGAGTGA GTAATCCGTG GGGTCCGAAA TGTGAAATAC GAAGGCCGAG CATACAACAC ACCTTAACAC TCGCCTATTG TTAAAGTGTG

5201  AGGAAACAGC TATGACCATG ATTACGAATT AATTCGAGCT CGCCCGACAT TGATTATTGA CTAGTTATTA ATAGTAATCA ATTACGGGT CATTAGTTCA
      TCCTTTGTCG ATACTGGTAC TAATGCTTAA TTAAGCTCGA GCGGGCTGTA ACTAATAACT GATCAATAAT TATCATTAGT TAATGCCCCA GTAATCAAGT
                            from pPMLCMV beginning to HindIII, enhancers and promoter

5301  TAGCCCATAT ATGGAGTTCC GGGTTACATA ACTTACGGTA AATGGCCCGC CTGGCTGACC CCCGCCCAT TGACGTCAAT AATGACGTAT
      ATCGGGTATA TACCTCAAGG CGCAATGTAT TGAATGCCAT TTACGGGGCG GACCGACTGG GGGCGGGGTA ACTGCAGTTA TTACTGCATA

5401  GTTCCCATAG TAACGCCAAT AGGGACTTTC CATTGACGTC AATGGGTGGA GTATTACGG TAAACTGCCC ACTTGGCAGT ACATCAAGTG TATCATATGC
      CAAGGGTATC ATTGCGGTTA TCCCTGAAAG GTAACTGCAG TTACCCACCT CATAAATGCC ATTTGACGGG TGAACCGTCA TGTAGTTCAC ATAGTATACG

5501  CAAGTACGCC CCCTATTGAC GTCAATGACG GTAAATGGCC CGCCTGGCAT TATGCCCAGT ACATGACCTT ATGGGACTTT CCTACTTGGC AGTACATCTA
      GTTCATGCGG GGGATAACTG CAGTTACTGC CATTTACCGG GCGGACCGTA ATACGGGTCA TGTACTGGAA TACCCTGAAA GGATGAACCG TCATGTAGAT
```

Figure 5E

5601 CGTATTAGTC ATCGCTATTA CCATGGTGAT GCGGTTTTGG CAGTACATCA ATGGGGCGTGG ATAGCGGTTT GACTCACGGG GATTTCCAAG TCTCCACCCC
     GCATAATCAG TAGGCGATAAT GGTACCACTA CGCCAAAACC GTCATGTAGT TACCCGCACC TATCGCCAAA CTGAGTGCCC CTAAAGGTTC AGAGGTGGGG

5701 ATTGACGTCA ATGGGAGTTT GTTTTGGCAC CAAAATCAAC GGGACTTTCC AAAATGTCGT AACAACTCCG CCCCATTGAC GCAAATGGGC GGTAGGCGTG
     TAACTGCAGT TACCCTCAAA CAAAACCGTG GTTTTAGTTG CCCTGAAAGG TTTTACAGCA TTGTTGAGGC GGGGTAACTG CGTTTACCCG CCATCCGCAC

5801 TACGGTGGGA GGTCTATATA AGCAGAGCTC GTTTAGTGAA CCGTCAGATC GCCTGGAGAC GCCATCCACG CTGTTTTGAC CTCCATAGAA GACACCGGGA
     ATGCCACCCT CCAGATATAT TCGTCTCGAG CAAATCACTT GGCAGTCTAG CGGACCTCTG CGGTAGGTGC GACAAAACTG GAGGTATCTT CTGTGGCCCT

5901 CCGATCCAGC CTCCGCGGCC GGGAACGGTG CATTGGAACG GGGATTCCCC GTGCCAAGAG TGACGTAAGT ACCGCCTATA GAGTCTATAG GCCCACCCCC
     GGCTAGGTCG GAGGCGCCGG CCCTTGCCAC GTAACCTTGC CCCTAAGGGG CACGGTTCTC ACTGCATTCA TGGCGGATAT CTCAGATATC CGGGTGGGGG

6001 TTGGCTCGTT AGAACGCGGC TACAATTAAT ACATAAACCTT ATGTATCATA TTAGGTGACA CTATAGAATA ACATCCACTT TGCCTTTCTC
     AACCGAGCAA TCTTGCGCCG ATGTTAATTA TGTATTGGAA TACATAGTAT AATCCACTGT GATATCTTAT TGTAGGTGAA ACGGAAAGAG
                sp6 promoter   sp6 RNA start

6101 TCCACAGGTG TCCACTCCCA GGTCCAACTG CAGGCCATGG CGGCCATCGA TT   (SEQ ID NO.25)
     AGGTGTCCAC AGGTGAGGGT CCAGGTTGAC GTCCGGTACC GCCGGTAGCT AA
                                    cloning linker

Figure 5F